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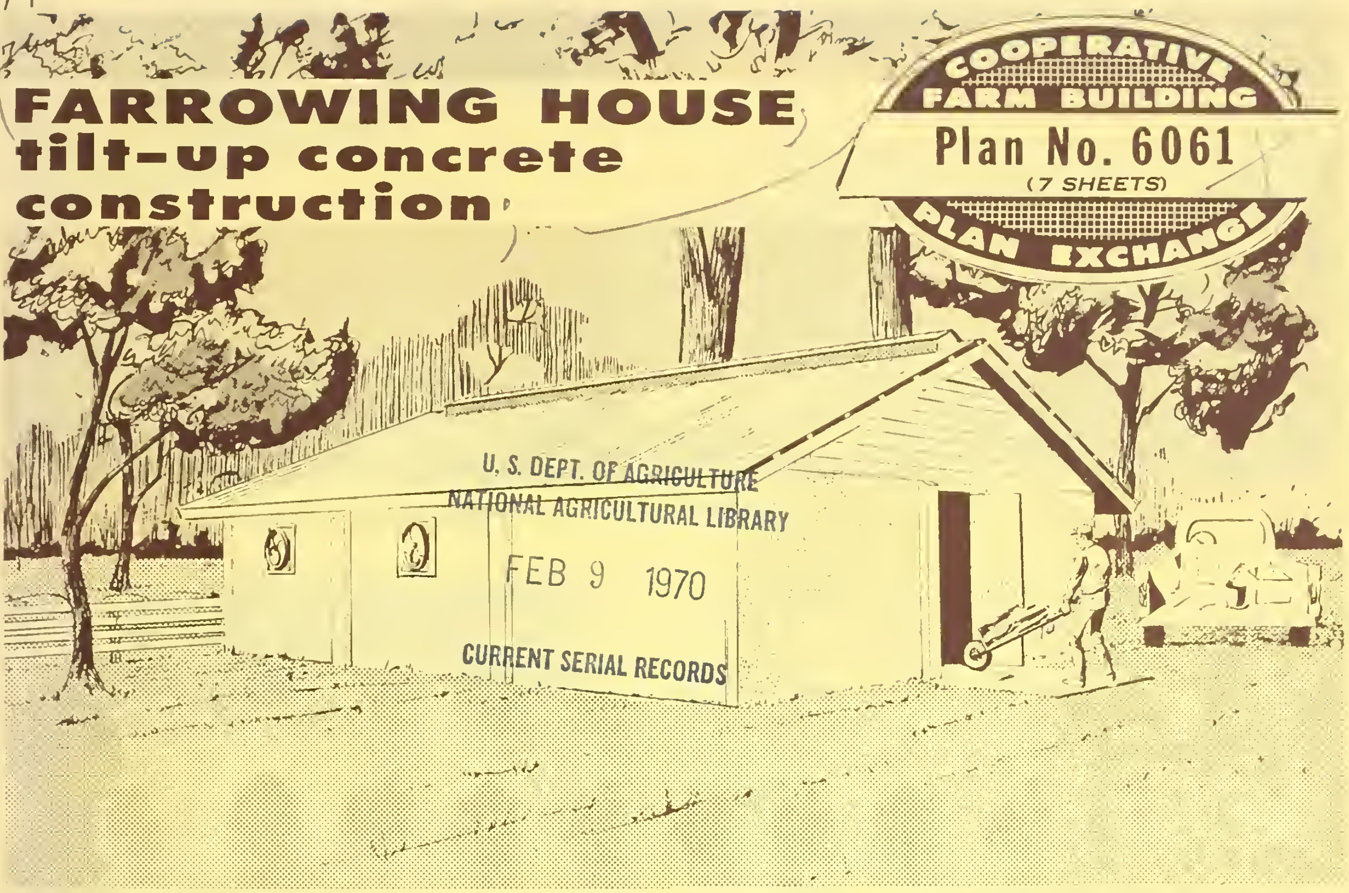
FARROWING HOUSE tilt-up concrete construction

COOPERATIVE FARM BUILDING

Plan No. 6061

(7 SHEETS)

PLAN EXCHANGE



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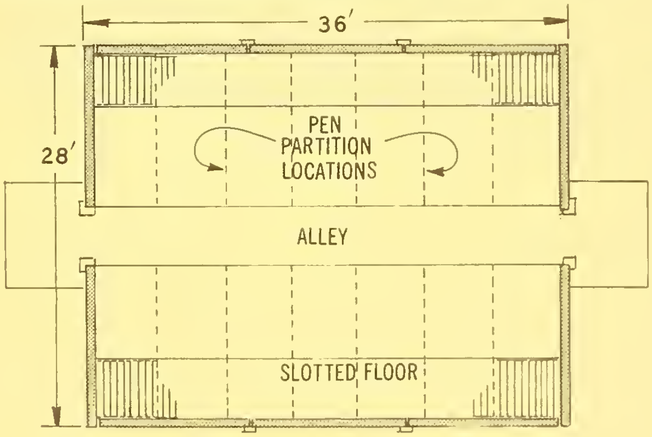
CURRENT SERIAL RECORDS

This central farrowing house is intended to improve the environment for sows and their litters and to reduce the labor required for good sanitation.

The building was developed at the University of Nebraska, in cooperation with the Portland Cement Association. Fourteen pens, each 4 feet 11 inches wide and 11 feet 8 inches long, are separated by precast concrete partitions 3 feet 2 inches high. About one-third of the floor in the pens is slotted, and concrete slats cover two water-filled pits located along the sidewalls. Although the building is windowless to improve the thermal qualities of the walls, thermostatically controlled exhaust fans in one sidewall provide positive ventilation by drawing air from under the eaves and in through baffled slots in the ceiling at both sidewalls. The working drawings include information about the fan types and capacities and about the ventilation management recommended for various times of the year in Nebraska.

The types of equipment for feeding, watering, and supplemental heating are not specified as these will be determined by the preferences of the operator.



In the tilt-up method of construction, the concrete panels which form the walls are cast flat in simple edge forms. When properly cured, they are tilted erect and braced temporarily, and reinforced concrete columns are cast in place to join and support them. The wall panels of this farrowing house are of sandwich construction, in which a layer of rigid, foamed plastic insulation is placed between two layers of reinforced concrete when the panels are cast. These panels are 5½ inches thick.

Washington, D.C.

Issued January 1969

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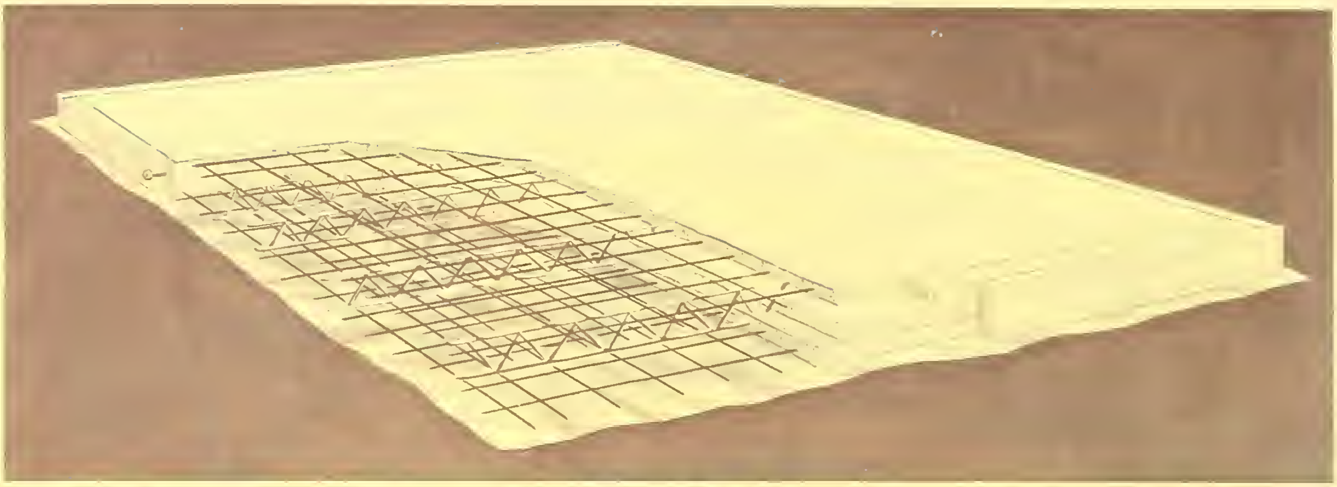


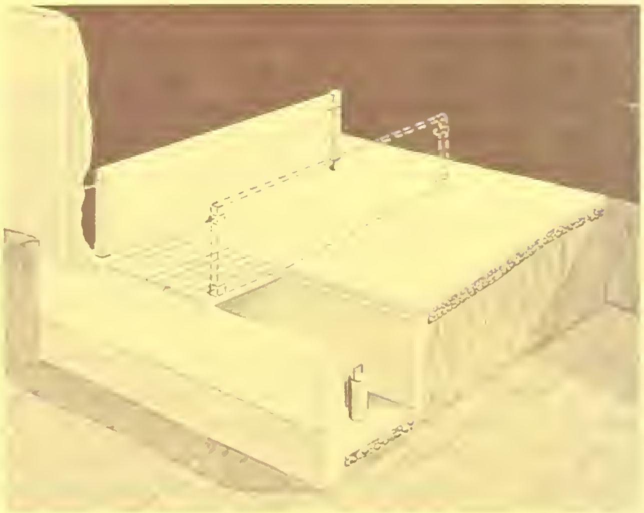
CUTAWAY VIEW OF WALL PANEL

The roof and insulated ceiling are supported by clear span trusses designed for a total load not in excess of 21 pounds per square foot. Heavier loads can be accommodated by decreasing the spacing between the trusses. Consult your county agricultural agent or State extension agricultural engineer for information on the load-bearing capacity needed in your area. The working drawings include construction details for these trusses, which have plywood gusset plates glued and nailed to the chord and web members. Gluing is critical and must be done strictly in accordance with the manufacturer's directions. Only exterior-type plywood should be used for the gusset plates. Suitable commercially fabricated trusses may be substituted, if desired, with a resultant reduction of onsite labor.

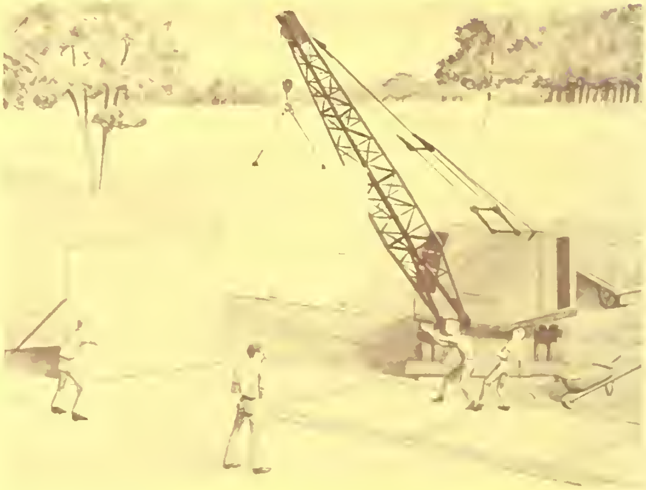
A large-scale working drawing may be obtained from the extension agricultural engineer at your State university. There may be a small charge to cover cost of printing.

If you do not know the location of your State university, send your request to Agricultural Engineer, Federal Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university.

ORDER PLAN NO. 6061, FARROWING HOUSE
Tilt-up Concrete Construction



CUTAWAY VIEW OF PEN



METHOD OF PLACING PANELS

Agricultural Engineering Research Division AGRICULTURAL RESEARCH SERVICE

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